DOCUMENT RESUME

ED 190 612 TM 800 405

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TITLE Delivering Technical Assistance: Can Change Constructs Help?
PUB DATE Apr 80
NOTE 46p.; Paper presented at the Annual Meeting of the American Educational Research Association (64th, Boston, MA, April 7-11, 1980).

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Change Strategies; Elementary Secondary Education; Evaluation Methods; Evaluation Needs; Information Utilization; Measurement Objectives; Models; *Program Effectiveness; *Program Evaluation; *Program Implementation; Program Improvement; Research Needs; Role Conflict; *Technical Assistance
IDENTIFIERS Elementary Secondary Education Act Title I; *Evaluation Problems; Levels of Use Chart; Research Develop Diffuse Adopt Model; Technical Assistance Centers; *Title I Evaluation and Reporting System

ABSTRACT

Four problems underlying the delivery of technical assistance in Elementary Secondary Education Act (ESEA) Title I evaluation are discussed: (1) the dual missions of facilitating the implementation of the Title I Evaluation and Reporting System and of facilitating the local use of evaluation information frequently require tradeoffs between evaluation activities; (2) there is a relative lack of an experiental base on which technical assistance strategies can be built; (3) research on evaluation in its natural setting is recent and sketchy; and (4) conceptual analyses of technical assistance as a part of planned educational change are not available. This paper reviews literature on providing technical assistance in evaluation, evaluating educational programs within the educational system, and analyzing educational change in terms of implementation processes. Models for clarifying evaluation goals and developing state and local evaluation plans are described. A model for analyzing state and local education agencies' planned evaluation system improvements, in terms of stages of implementation or levels of use, is discussed as a means for improving the relevance and efficiency of Title I technical assistance. (Author/GDC)

DELIVERING TECHNICAL ASSISTANCE:

CAN CHANGE CONSTRUCTS HELP?

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Paper presented at the American Educational Research Association annual meeting, Boston, Massachusetts: April 1980.

Problem Statement

We address a multifaceted problem in this symposium. The following conditions are broken out as its key elements.

1. The Technical Assistance Center (TAC) mission involves multiple goals among which tradeoffs may be necessary. The primary goals of Title I Technical Assistance Centers are to facilitate implementation of the United States Office of Education's (USOE) Title I Evaluation and Reporting System (TIERS) and to facilitate local use of Title I evaluation. These goals are conceptually distinct. The Title I Evaluation and Reporting System has been described by Wisler and Anderson (1979) as one which "should satisfy evaluation needs at the local, state and federal levels but without necessarily being the sole form of evaluation at any of these levels" (p. 49). By implication, concentrating technical assistance solely on implementation of the Title I Evaluation and Reporting System is not necessarily expected to facilitate local use of Title I evaluation. Additional evaluation activities may be necessary.

Two factors compound the condition. First, the technical assistance under consideration is in evaluation. Evaluation serves a variety of purposes including providing an accountability function. As a consequence, providing technical assistance has the potential for role conflict. Second, evaluation use is an emerging concept requiring further clarification as it becomes a meaningful goal.

2. Providing technical assistance in evaluation on a large scale is a relatively new enterprise. Examples of projects providing evaluation technical assistance include the Evaluation Training Consortium project sponsored by the Bureau of Education for the Handicapped (Brinkerhoff, 1979), the California Improvement Project initiated in 1974 and funded by USOE (Finley, 1979), and the Technical Assistance Development System providing evaluation assistance to 63 demonstration projects for preschool handicapped children (Suarez, 1979). The Title I Evaluation TAC network, initiated during 1976, is the largest of these evaluation technical assistance programs.

Each of these projects began after 1974. Consequently, the experiential basis for planning and delivering technical assistance in evaluation is both recent and limited.

3. The practice of evaluation has only recently received attention as an area of empirical inquiry. The research of Alkin, Daillak and White (1979), David (1978), Lyon (1979) and Patton (1978) has focused on factors defining and affecting the use of evaluation information in its natural organizational setting. Research being conducted by the Huron Institute is in early stages but is expected to be used in forming policy on future technical assistance strategies (Kennedy, personal communication). These studies are very recent and largely exploratory in nature, providing only limited information for shaping the delivery of technical assistance.

4. At present there is no commonly accepted conception of evaluation technical assistance in relation to educational knowledge production and utilization. Technical assistance may be characterized as operating within a change strategy. By implication, a technical

assistance program may be asked to provide a variety of support services that depend upon the particular change strategy being followed, the organizational arrangements or other variables. A review of literature on technical assistance in relation to educational change strategies failed to produce conceptual treatments. Thus, there is a weak theoretical base as well as a weak experiential basis to draw on in providing quality technical assistance.

At a minimum, these four conditions which interact underlie the problem we address. The relative lack of research on evaluation as practiced in the natural organizational setting contributes to uncertainty in making tradeoffs among sometimes competing evaluation goals or choosing alternative roles. Research on evaluation use can be viewed as a special instance of this larger domain of research on knowledge production and utilization. A theory of evaluation use, if attainable, would occupy a niche within the larger domain. Hypotheses derived from research on knowledge production and utilization might be tested within research on evaluation use. Hypotheses suggested from research on evaluation use might be compared with reigning hypotheses in the knowledge production and utilization domain.

These conditions imply different problems to different people. Some may emphasize the need for research and better theory; others may seek solutions in policy; still others may see these conditions as something each technical assistance program must deal with on its own terms.

The view of the problem state expressed in the paper is that of a provider of evaluation technical assistance. The emphasis is placed on guides to action, action hypotheses, corresponding procedures and self-evaluation techniques and "mind holds" as described by Chin and Downey (1973).

In the next section we provide an overview of three general areas of inquiry that may provide insights into improving the delivery of technical assistance.

Search for "Mind Holds"

Guidance Received from Recent Experience in Evaluation Technical Assistance

External views. During the three and one-half year period of TAC performance, one formal external evaluation of the TAC system was conducted by Hope Associates (1979). Under the sponsorship of the Assistant Secretary for Planning and Evaluation (ASPE), Department of Health, Education and Welfare, the Panel's full charge was to evaluate USOE's implementation of its federal mandate, under Section 151c of ESEA Title I as amended, to provide technical and other assistance for Title I evaluation. Because of the scope of the TAC system as compared to other implementation activities the Panel concentrated heavily on the TACs, intending to identify ways to improve the TAC system. Thus, the Panel's investigation was based upon the experience of TACs within the context of USOE's implementation of its legislative mandate.

To provide a conceptual basis for recommendations, the Panel drew upon the general area of knowledge production and utilization. Appendix G of the Panel's report sketches out elements of a guiding theory in which technical assistance is viewed as "a change system performing a communication function directed toward new practice and not solely new knowledge" (p. 95). As a consequence of this view, the Panel's recommendations focus upon technical assistance strategies and tactics

rather than on the particular content of the Title I Evaluation and Reporting System or evaluation assistance in general.

The Panel's recommendations for improving technical assistance through modifying what was then the TAC scope of work include:

1. "That the TACs be allowed to provide technical assistance services, as negotiated with each state, that assist in the development of increased capacity for Title I evaluation. Permissible areas of service should place more emphasis on technical assistance directed toward identifying strengths and weaknesses of individual programs for the purpose of improving them" (p. 56).
2. "That each TAC place greater emphasis on staff development relevant to the provision of technical assistance for Title I evaluation" (p. 57).
3. "That research relevant to Title I evaluation problems and issues be recognized as a permissible activity for TACs to undertake and that a certain proportion of TAC funding be earmarked for such research activities. Title I evaluation related activities that require a more specialized knowledge and expertise (e.g., data analysis, quality control of data) should also be permitted" (p. 57).

A fourth Panel recommendation made to the USOE provided added emphasis to the first recommendation for formulating the new TAC scope of work. The Panel recommended:

4. "That the Office of Education begin to investigate, during the period of the next contracts for Technical Assistance Centers,

the possibility of a future system that has flexibility to accommodate: the diversity of state and local capabilities and needs, and also the enlarged objectives of Title I evaluation technical assistance, particularly including the uses of evaluation for local program improvement and the strengthening of local evaluation capacity" (p. 60).

A reading of the Panel's full report is necessary to understand the rationale underlying its recommendations which were later acted on in USOE's Request for Proposal that initiated the current period of TAC funding. An issue surfacing throughout the report is the extent to which implementation of the Title I Evaluation and Reporting System will supply information useful for local program improvement.

Based on a series of case studies on local use of Title I evalution, David (1978) had previously recommended that the TAC mission place greater emphasis on local use of evaluation, and, to this end, that strategies be designed to encourage local education agencies (LEAs) to identify evaluation questions of interest to them. Still earlier, McLaughlin (1975), describing Title I evaluation from 1965 to 1972, suggested that the issue of evaluation use at the local level was not adequately addressed and was at the root of many of the early evaluation failures in Title I. Obviously, the issue is not without historical precedent.

The Panel reported that some of those state education agency (SEA), TAC and USOE staff interviewed believed that process or formative evaluation would be more useful at the local level than models implementation. This issue, along with alleged technical weaknesses of the evaluation models, contributed to the first and fourth Panel

recommendations listed above. A concurrent ASPE-sponsored survey of LEAs identified the area of highest need to be assistance in evaluation for program improvement (National Center for Educational Statistics, October 18, 1979).

The effect of these two recommendations on the TAC mission is noteworthy. In those states and districts perceiving the Title I Evaluation and Reporting System as inadequate for informing program improvement, the need is heightened for making tradeoffs between facilitating Title I Evaluation and Reporting System implementation and facilitating the use of evaluation for local program improvement. The Panel's recommendation on this issue has contributed to the severity of the problem of multiple goals raised at the beginning of this paper. However, rebalancing the two major TAC goals was probably necessary and inevitable, given historical circumstances and current perceptions.

Wisely, the Panel stressed that its recommendations were permissive in nature. The increased emphasis placed on what had been a secondary goal was offset by recommendations for staff development and research related to the provision of technical assistance in Title I evaluation. Clearly, the recommendations encouraged TACs to find ways to adapt to changing circumstances.

In addition to the Hope Associates Report (1979), the ASPE-sponsored survey (October 18, 1979) and David's (1978) study, there are about 200 other papers dealing with recent USOE-sponsored efforts, including the TAC system, to improve Title I evaluation. The vast majority of these papers deal with technical issues and informed "points of view" about the impact that implementing the Title I Evaluation and Reporting System (TIERS) has had upon various agencies. Approximately 15 papers deal with

issues related to the delivery of technical assistance. Since perspectives on these issues vary among sponsors, providers and receivers of technical assistance, the review of the papers is organized according to the role of the author.

Sponsor views. A number of papers by federal officials contain discussions of the broad intent of USOE-sponsored efforts to improve Title I evaluation (c.f. Anderson, Fishbein, & Stonehill, 1979; Barnes & Ginsburg, 1979; and Wisler & Anderson, 1979).

On the theme of TAC goals, Anderson, Fishbein and Stonehill (1979) stated:

> Since September, 1976, USOE personnel have placed first priority on assisting States to implement the reading, mathematics and language arts evaluation models. Without a secure foundation on which to base more elaborate and ambitious evaluation strategies, it would have proven extremely difficult to organize and disseminate evaluation activities aimed at local program improvement. However, it should be noted that although USOE has placed priority on the implementation of the TIERS, assistance in the areas of Title I evalution which are not addressed by these models has been provided to some SEAs and LEAs, and the availability of such services has been made generally known.
>
> The models for assessing the achievement impact of Title I programs have been published in the Federal Register (February 7, 1979), as draft regulations[1]. The hope is that through application of these models at the SEA and LEA levels, USOE will be provided with data that can be used to develop a major component of its report to Congress on the status of the Title I program.
>
> Now that all SEAs are preparing to implement the proposed evaluation models, and many have already done so on a statewide basis for several years, USOE can devote more effort to helping States make better use of the data that is being produced through the implementation of the TIERS and to assist any SEAs or LEAs to develop evaluation strategies that will address questions of program importance and interest that are not adequately answered by implementing the TIERS (p. 6-7).

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[1]The final evaluation regulations were published in the Federal Register (October 12, 1979).

Anderson et al. (1979) go on to describe the USOE-sponsored efforts to increase local utility of evaluation. Although TIERS was not assumed to be the sole means of meeting local evaluation needs, it was, nonetheless, the priority activity in the early years of implementing technical assistance.

Wisler and Anderson (1979) describe the rationale underlying the development of TIERS. Their first premise is:

> "The system should satisfy evaluation needs at the local, state and federal levels, but without necessarily being the sole form of evaluation at any of those levels" (p. 49).

This view considers TIERS as a common core, an element in any Title I evaluation system defined at an LEA or SEA level, but not a comprehensive system at any level.

Provider views. As providers of Title I evaluation technical assistance, TAC staff have accumulated experience and data on the Title I evaluation improvement effort (c.f. Bessey, 1979; Hansen and Oxford, 1979; Oxford, 1979; Temp, 1979; and Troy, 1979). These papers cite improved evaluation practices in states receiving technical assistance. Examples include improvements in test selection procedures, test interpretation and scoring, forms and reporting procedures and testing at times appropriate for valid normative interpretation (the norm-referenced evaluation model). Activities going beyond the routine application of TIERS include USOE-sponsored state refinement contracts dealing with quality control procedures, providing feedback from SEAs to LEAs and exploring procedures for Title I reporting. These are also cited as evidence of "impact."

The evidence of impact comes from a number of sources including personal observations, surveys and interviews of SEA and LEA staff, and document reviews. Two problems are encountered in interpreting this information. First, there is little direct evidence about the actual use of evaluation results. Much of what has been reported to date reflects plans for using data and approaches to technical assistance hypothesized to encourage and facilitate use. Hansen and Oxford (1979) report that LEAs responding to a mail survey expressed greater interest in the use of data for decision making than did SEA respondents. At the same time, SEA and LEA attitudes toward evalution were reported as improving. The second and related problem is the difficulty of determining whether progress is actually being made. Given TIERS requirements, what changes might have been expected and when? Three papers prepared by TAC staff begin to identify conceptual views within which one might attempt to interpret and evaluate improvement across time. Troy (1979) suggests that encouraging the use of evaluation for program improvement requires careful planning of the evaluation so that local program evaluation activities produce information satisfying the requirements of TIERS as well as answering locally defined evaluation questions.

Bessey (1979) proposed a three-stage process of using evaluation for program improvement. The first stage calls for implementing evaluation practices allowing one to attribute gains to treatments with confidence. Producing internally valid results is the priority objective. The second stage of the process involves providing feedback on the project's outcomes to the LEA. In the third stage, valid data are used to improve

the program or to identify exemplary instructional practices for dissemination.

The major difference between the views of Bessey (1979) and of Troy (1979) is that Bessey's three-stage process assumes measurement of project achievement gains to be the priority evaluation question--one which presumably has direct and sufficient implications for program improvement. Troy (1979), on the other hand, sees a necessity to give equal priority during initial planning both to measuring project gains and to specifying the local evaluation questions. The dual missions of facilitating local use and of TIERS implementation surface again, this time in terms of alternative strategies for implementing technical assistance.

What is significant is not so much that Troy (1979) and Bessey (1979) have proposed incompatible processes but that both have described technical assistance strategies including workshop materials, quality control procedures, etc., that correspond to their respective points of view. Furthermore, each claims that her strategy meets with client acceptance.

Brinkerhoff (1979) discussed lessons learned through the operation of the Evaluation Training Consortium (ETC) project. The ETC project was a national project sponsored by the Bureau of Education for the Handicapped to upgrade the program evaluation capabilities and performance of special education personnel preparation programs. The evaluation training provided was based on Provus' Discrepancy Evaluation Model.

According to Brinkerhoff technical assistance should be:

1. Part of a self-help strategy
2. Integrally linked to training
3. Designed to maintain client investment in all work completed
4. Model-based
5. A combined responsive and proactive system
6. Product related

Each point has implications for improving Title I evaluation technical assistance. Conceptualizing technical assistance as part of a self-help strategy emphasizes the importance of defining roles and responsibilities of providers and receivers in such a way that it is possible to determine where technical assistance will begin and end. Transfer of knowledge and capabilities is expected to result from the training aspect of technical assistance. Maintaining the client's investment in all work completed is closely related to the first point. Client dependence on the providers of technical assistance must be minimized.

Providing model-based assistance ensures that services are comprehensive, internally consistent and goal-oriented. The structure ensuring the coherence of the technical assistance does not need to limit its responsiveness, however. Services are initiated by client requests and may be planned by the providers of technical assistance to take into account the receiver's status vis-a-vis evaluation planning, implementation and use. One tangible indication of receiver status is the focus of current client activity on evaluation. For example, an LEA request for assistance in using TIERS data as input to the programmatic

needs assessment demonstrates achievement in evaluation planning and implementation, and a readiness to focus on use. Locating service requests within the larger evaluation effort of a particular client provides contextual clues to the provider that should make the service delivered more tailored and, therefore, more effective.

On a broader note, an examination of issues in assisting SEAs and LEAs in implementing the Title I Evaluation and Reporting System prompted Oxford (1979) to conclude that "ultimately the adequacy of the process and impact of the Title I Technical Assistance Centers should be viewed in light of a change model" (p. 34). The model suggested by Oxford was the Research-Develop-Diffuse-Adopt Model proposed by Guba and Clark (undated). In a subsequent section this model and an alternative view will be described in more detail.

Receiver views. Kearns' (1979) survey of state Title I coordinators addressed a number of questions regarding the impact (or implementation) of the Title I Evaluation and Reporting System on the SEAs. Changes in staff assignments, adding staff, providing inservice training, modifying technical assistance activities with local districts, rebudgeting and increased effort spent on debating or defending issues unfamiliar to many involved in program administration were some of the changes noted.

Kearns observes that the key value of Title I evaluation lies in its ability to provide the local district with information on the results of program effectiveness. The ASPE-sponsored survey of LEA needs for technical assistance supports this observation (NCES, October 18, 1979). The benefits that may derive for states, USOE or Congress are viewed as

secondary. In this light, overemphasis on aggregation, which reflects a unitary system with a common goal, fails to recognize the diversity of goals for evaluation among different users and could result in failure to provide locally meaningful evaluation. Attempts to use the TIERS as the sole means to meet the needs of all three levels of users may be the system's undoing. A factor contributing to resistance to the TIERS is the continuing and unsettling debate over technical issues involving the TIERS. Kearns called for rapid resolution of major technical issues and for corresponding system modifications. Ironically, the survey respondents perceived the quality of TIERS data to be relatively high compared to the extent to which TIERS data are provided for improved program decision making. To remedy the problem, Kearns identified a need for methods of process evaluation and longitudinal evaluation appropriate to local district Title I programs.

The previous paragraphs are representative of the points of view expressed by external evaluators, sponsors, providers and receivers of technical assistance about the relative priority of facilitating TIERS implementation and facilitating the use of evaluation for local program improvement. Ad hoc resolution of this issue is a routine aspect of providing technical assistance.

To conclude that the two goals are nonoverlapping would be an oversimplification. That is, knowing whether a project produced achievement gains is of some consequence to those interested in local program improvement. On the other hand, it should be clear that the two goals are different. Facilitating evaluation for local program improvement should be based on questions and issues of relevance to local

decision makers. Practical resolution of the issue must be achieved as technical assistance is planned and delivered within each receiver agency. Since providers of Title I evaluation technical assistance are actively involved in a change process, it seems appropriate to turn to research on evaluation use and planned educational change as two sources of guidance.

Research on Evaluation

Providing technical assistance services responsive to client needs and circumstances (i.e., client-centered) depends, in part, on knowledge of the organizational arrangements and activities associated with the clients involved in evaluation. Evaluation activities are carried out by people occupying positions within agencies that influence and are influenced by other agencies. Improvements are directed toward new practices not just transmitting new knowledge. Studies of evaluation as practiced by personnel in educational agencies are beginning to supply contextual information important in planning for and implementing improvements in evaluation practice (c.f. Alkin et al. 1979; Kennedy, personal communication; Lyon, 1979; and Patton, 1978).

Lyon's (1979) descriptive study of evaluation and school districts presents a number of specific findings related to the problem of multiple goals and the potential for conflict and ambiguity in facilitating evaluation use through technical assistance.

First, evaluation units are relatively recent organizational arrangements. Fifty-one percent of the existing units sampled were organized or reorganized since 1970. Second, evaluation units typically

share authority with other units for data gathering. Third, local funds rather than federal or state monies dominate evaluation unit budgets. Fourth, there is little reported agreement either on what constitutes basic evaluation practice or on the priority of various evaluation activities. Fifth, larger districts tend to centralize evaluation units within administrative and support services divisions rather than include evaluation within instructional program units. Sixth, while non-evaluation staff perceive evaluation positions to be high on ambiguity and conflict, evaluation staff do not perceive such ambiguity and conflict to be an important aspect of their jobs. Heads of evaluation offices are more prone to see larger staffs, computer access and information about effective evaluation practices as ways of improving effectiveness. They do not view as particularly useful organizational changes, improved communications or additional staff development programs.

Lyon (1979) did not directly address the issues of evaluation use (i.e., what is it? how is it achieved?) in depth. Alkin et al. (1979) and Patton (1978) have provided insights into these issues. Through their research, Alkin et al. (1979) and Patton (1978) have raised a "criterion problem" with respect to evaluation use. Given a general premise that evaluation is intended to increase rationality in program decision making, Alkin et al. (1979) contrast a "mainstream view" of evaluation use with an "alternative view" reflected in their research.

The "mainstream view" was inferred from criticisms of many authors who have decried evaluations for not being used. Basic to the "mainstream view" is a belief that evaluation can and should result in major program modifications or in make-or-break decisions on the programs

assessed. The alternative view stresses a gradual and incremental impact of evaluations resulting from cumulative changes in decision makers' perceptions of programs.

After analyzing case studies of five evaluation projects, Alkin et al. propose a conceptual framework for describing evaluation use. The framework suggests but does not establish "reality-based" criteria for using evaluation in local program improvement. Technical assistance designed to facilitate use of evaluation data for local program improvement should consider the implications of Alkin et al.'s (1979) descriptive framework of evaluation use as implying ultimate criteria for improving evaluation.

Each evaluation use requires communication of evaluation information to an appropriate user. The information may be used alone or in combination with other influences to make decisions, substantiate previous decisions or actions or establish or alter attitudes related to a variety of programmatic issues (e.g., establishing a program, securing external funding, changing program components, securing community acceptance).

Alkin et al. (1979) also identify a tentative analytic framework of 29 properties affecting the process of evaluation use. These 29 properties are organized within eight categories. A number of these properties are related to the influence of externally mandated evaluation activities (i.e., mandated bounds of an evaluation, use of a formal evaluation model, research and analysis considerations, the evaluators dealing with mandated evaluation tasks and influences of other governmental agencies). The case studies suggested that evaluation activities in "high use" districts tend not to be dominated by mandated

tasks, not to be based on formal evaluation models or rigorous design and analysis considerations. Supporting Patton (1978), Alkin et al. (1979) concluded that interpersonal factors involved in the evaluator's approach seemed to play a significant role in affecting use.

The studies cited here are certainly not exhaustive of the area of field research on evaluation. They do seem to support David's (1978) contention that efforts to improve local use of Title I evaluation require more than changing the type or quality of information contained in the evaluations. Because of the need to examine organizational and interpersonal factors in evaluation use, an examination of the broader area of knowledge production and utilization is warranted.

Theory and Research on Knowledge Production and Utilization

The Research-Develop-Diffuse-Adopt (R-D-D-A) model has been, for a number of years, the dominant view of planned educational change. The R-D-D-A model, according to Guba and Clark's (undated) conception is initiated by research, followed by two stages of development (invention and design), which leads to two stages of diffusion (dissemination and demonstration), concluding in three stages of adoption (trial, installation and institutionalization).

If one accepts the premise that evaluation of the TACs be viewed in terms of the R-D-D-A model as Oxford (1979) suggests, then the role and success of the TACs would be expressed in terms of their diffusion efforts (i.e., dissemination and demonstration) and aid given to states and districts as they adopt (i.e., conduct trial runs, install and institutionalize) the Title I Evaluation and Reporting System. But TACs have a broader mission as has been clearly established in policy.

Guba and Clark (1975), however, have questioned the adequacy of the R-D-D-A model as a basis for developing "political support for educational R & D or to effect a significant improvement-oriented change in educational practice" (p. 6). Representing a linear, unified systems view of R & D, the R-D-D-A model has a number of inadequacies.

Application of the ..-D-D-A model is regarded as problematic because of a tendency toward:

1. Establishing unachievable aspirations
2. Ignoring the idiosyncratic (ideographic) goals of individuals and individual agencies in the educational community
3. Changing policy and program directions persistently and frequently in an attempt to overcome failures in program achievement provoked by conditions 1 and 2 above.
4. Overcentralizing and overcontrolling programs which have been assessed as failures (Guba and Clark, 1975, p. 6).

Guba and Clark call for reconceptualizing a broad approach to educational knowledge production and utilization (KPU). Such a conceptualization would account for the full spectrum of KPU functions (completeness), be responsive to individual, intraagency and interagency goals (balance) and reflect the reality of educational KPU (realistic). They describe a configurational view which is compared to the R-D-D-A model. The Guba and Clark (1975) analysis is particularly interesting because of the relationship between the issues regarding KPU processes in general and those involved in delivering technical assistance in evaluation.

The configurational view is more flexible and "permissive," it accounts for the full range of KPU functions without assuming a linear flow of events. In theory the configurational view is superior to the R-D-D-A model. Flexibility and permissiveness, however, do not preclude the need for explicitness of innovations if improvement is to be accomplished. An approach toward establishing explicitness without assuming elaborate predefinition and linearity is suggested by recent research on the implementation of innovations.

Research on implementation provides clues for improving technical assistance that are grounded in "real events" rather than plans or intentions. In their review of research on curriculum and instruction implementation, Fullan and Pomfret (1977) distinguish between planning, adoption and implementation. Planning is the process of specifying the intended use of an innovation; adoption is the decision to use the innovation; and implementation "refers to the actual use of an innovation or what an innovation consists of in practice" (Fullan and Pomfret, 1977, p. 336). The implementation process is generally ignored in the context of the R-D-D-A model. It is implicit, however, in the configurational view.

In the case of Title I evaluation, each agency is involved in planning, adopting and implementing a set of Title I evaluation activities in accordance with one of the available models or an approved alternative. Idiosyncratic evaluation activities can and do exist within various agencies. To the extent that idiosyncracies are need-related, evaluation can be more influential in local program improvement.

Since it is the Title I evaluation system as implemented by SEAs and LEAs that will produce the data for USOE's actual use (i.e., USOE-level

implementation) of the TIERS, local Title I evaluation needs to be compatible but not necessarily restricted by TIERS. This raises a second distinction made by Fullan and Pomfret (1977). They categorize studies of implementation as following one of two main orientations, the fidelity perspective and the mutual adaptation perspective (see also Berman and Pauly, 1975, Berman and McLaughlin, 1976; and McLaughlin, 1976). The emphasis in the fidelity perspective "is to determine the degree of implementation of an innovation in terms of the extent to which actual use of the innovation corresponds to intended or planned use" (p. 340). The fidelity perspective is contrasted to the mutual adaptation perspective, which "is directed at analyzing the complexities of the change process vis-a-vis how innovations become developed/changed, etc. during the process of implementation" (p. 340). Under the former view, sufficient definition of the innovation exists prior to diffusion while the latter view presumes the definition of the innovation emerges through the implementation process.

These two perspectives represent alternative ways to conceptualize technical assistance roles as well as alternative perspectives on defining and describing the implementation of an innovation.

A mutual adaptation perspective is called for when the sponsor has flexible implementation objectives. Local initiative is actually required. Planning and adoption choices need to be made. Therefore, both technical assistance providers and receivers take on an active and diverse set of roles.

External evaluations of the implementation of the USOE-sponsored efforts to improve Title I evaluation may take either of the two perspectives. The fidelity perspective would entail describing what was

implemented as compared to the intentions of the sponsor. The mutual adaptation perspective would involve describing what was actually implemented. In either case, a description is provided and a descriptive framework is needed.

One approach to describing implementation is provided by Hall and Loucks (1976). Fullan and Pomfret (1977) call it "the most sophisticated and explicit conceptualization of 'the fidelity' orientation to assessing degree of implementation" (p. 355). Hall and Loucks (1976) conceptualize implementation as progressing through a series of levels or stages. Implementation exists in terms of a continuum ranging from nonuse through renewal. The set of levels is as follows:

0 Nonuse

I Orientation (initial information)

II Preparation (to use)

III Mechanical Use

IVA Routine Use

IVB Refinement

V Integration

VI Renewal

Operationalizing these levels in terms of Title I evaluation requires distinct criteria for USOE, SEAs and LEAs. One could envision descriptors of evaluation activities for various agencies. A suggested set of SEA and LEA indicators of each level is presented in Table 1 and 2, respectively.

Insert Tables 1 and 2 Here

Table 1

Levels of SEA Use of USOE Title I Evaluation and Reporting System

Levels of Use*	Indicators
0 Nonuse	• No knowledge of TIERS • No involvement with TIERS • Not seeking involvement
1 Orientation	• Acquired or is acquiring information about TIERS • Explored philosophical orientation of TIERS • Explored political or contractual application of TIERS • Explored demands on SEA staff • Explored demands on LEAs • Explored relationship of TIERS to in-place Title I evaluation
2 Preparation	• Planned first implementation of TIERS • Provided orientation training to other SEA staff • Provided orientation to LEAs • Developed sampling plans • Supplemented LEA application forms • Defined range of LEA options • Provided guidelines for LEA implementation of TIERS • Developed SEA analysis procedures • Developed SEA reporting system
3 Mechanical Use	• Effort focused on details of implementation • Communication to LEA concerning implementation decisions and options • Accepted feedback from LEA • Little time for reflection on overall use of TIERS • Changes or implementation decisions based more on user needs than client needs • Stepwise mastery of SEA tasks attempted • Disjointed and superficial use

*Levels of use on Hall and Loucks (1976)

Levels of Use*	Indicators
4A Routine Use	• Use of TIERS stabilized • Few if any changes • Little emphasis on improving use • Little thought given to consequences of use
4B Refinement	• SEA varies TIERS components to increase its use within immediate sphere of influence • Variations occur in scheduling • Variations occur in implementation • Variations occur in analysis • Variations occur in interpretation • Variations occur in reporting • Variations are based upon reducing costs, easing burden, USOE policy changes, technical information, consequences for LEAs increasing quality of information
5 Integration	• Revisions to TIERS implementation based on other SEA evaluation efforts • Revisions to other SEA evaluation efforts based on TIERS implementation • Emphasis in revision and refinements based upon achieving collective input • Revisions are in accord with USOE policy • New evaluation questions begin to emerge • Competing or conflicting values surface
6 Renewal	• SEA re-evaluates quality of TIERS use • Major modifications of or alternatives to initial SEA TIERS application sought • Emphasis on increased local use • New technical developments examined • New goals for SEA Title I evaluation and for TIERS explored

Table 2

Levels of LEA Use of USOE Title I Evaluation and Reporting System

Levels of Use*	Indicators
0 Nonuse	• No knowledge of TIERS • No involvement with TIERS • Not seeking involvement
1 Orientation	• Acquired or is acquiring information about TIERS • Explored contractual application of TIERS • Explored demands on LEA • Explored relationship of TIERS to in-place Title I evaluation • Explored relationship of TIERS to in-place district testing program
2 Preparation	• Selected an evaluation model • Provided orientation to appropriate Title I staff and other LEA staff and advisors • Assigned roles and responsibilities for TIERS implementation • Developed a testing schedule and ordered tests
3 Mechanical Use	• Effort focused on details of implementation • Execution of tasks monitored • Data processed and filed; little feedback • Little reflection on use of TIERS data
4A Routine Use	• Use of TIERS stabilized • Few, if any, changes from year to year • Little emphasis on improving use
4B Refinement	• LEA fine-tunes TIERS evaluation to eliminate problems and improve timeliness • Changes are made in scheduling, implementation, reporting and interpretation • Changes are based on reducing costs losing burden, USOE policy changes, technical information and need for increased quality of information • LEA augments basic TIERS requirements to provide aditional information, such as diagnostic data.

Levels of Use*	Indicators
5 Integration	• Revisions to Title I evaluation implementation based on other LEA evaluation efforts • Revisions to other LEA title I evaluation efforts related to TIERS implementation • Emphasis in revision and refinement based upon multiple district evaluation information needs • Local evaluaion questions begin to emerge • Evaluation data used in program improvement
6 Renewal	• LEA evaluates the quality of use of Title I evaluation data • Emphasis is placed on data use and on providing targeted information for decision makers • Options for improving Title I evaluation are explored and new approaches are planned and implemented

Assuming a progression through these levels would provide one means of forecasting SEA and LEA needs, to prepare appropriate technical consultation strategies and materials. One might argue that most states have gone through Preparation (Level II) and are presently at least at the stage of Mechanical Use. Other states that piloted the TIERS in advance of regulations may have progressed to Refinement (Level IVB) and may have begun planning for integration of Title I evaluation with other program operations or other evaluation activities. According to the Hall and Loucks continuum, use of evaluation for program improvement is an indicator of the Integration level of use which is to be expected at a fairly advanced stage of implementation.

Fullan and Pomfret (1977) have questioned whether explicit definition of the levels of use should be attempted prior to implementation. This is a moot point in terms of Title I evaluation because to our knowledge such explicit definition and assessment has not heretofore been attempted. Nonetheless, an ad hoc assessment of current status in terms of the levels of use continuum may assist in planning technical assistance for SEAs or LEAs. The kinds of requests and the expectations a client agency has for TAC services should be related to the agency's orientation and current level of use. One problem needs to be addressed before such an assessment is attempted. As discussed previously, a variety of factors suggest that greater attention should be given to determining local evaluation needs early in the implementation process. Research on evaluation suggests a variety of perspectives exist among LEAs on what constitutes basic evaluation priori[illegible]nd that mandated evaluation activities tend to be secondary to other evaluation activities

in districts using evaluation information. Local questions or issues may be raised prior to the Integration stage and should be dealt with whenever they arise.

The configurational view of the KPU implies there may be nonlinearity or discontinuity across levels. A compliance orientation to implementation involves responding bureaucratically (i.e., mechanically or routinely). Unless some internal motive emerges, the LEA or SEA may never move beyond the Routine Use level.

Agencies with a current history of evaluation reform may view Title I evaluation as something that must fit in with ongoing attempts to improve evaluation. These agencies may be motivated more toward refinement goals (e.g., using evaluation for program improvement) and compatibility with internal efforts than toward meeting external requirements. They simply may not perceive themselves as progressing through a series of levels initiated by the introduction of the TIERS. Under these circumstances, application of the linear implementation model may suggest to the client that goals are not appreciated or understood by the provider or sponsor of technical assistance.

A Conceptual Model for Analyzing SEA Implementation

The following conceptual model is intended to illustrate this problem in two-dimensional form.

Insert Figure 1 Here

Quadrant I represents the client group with ill-formed Title I implementation objectives. There is little internally or externally based motive to change current Title I evaluation practice. TAC

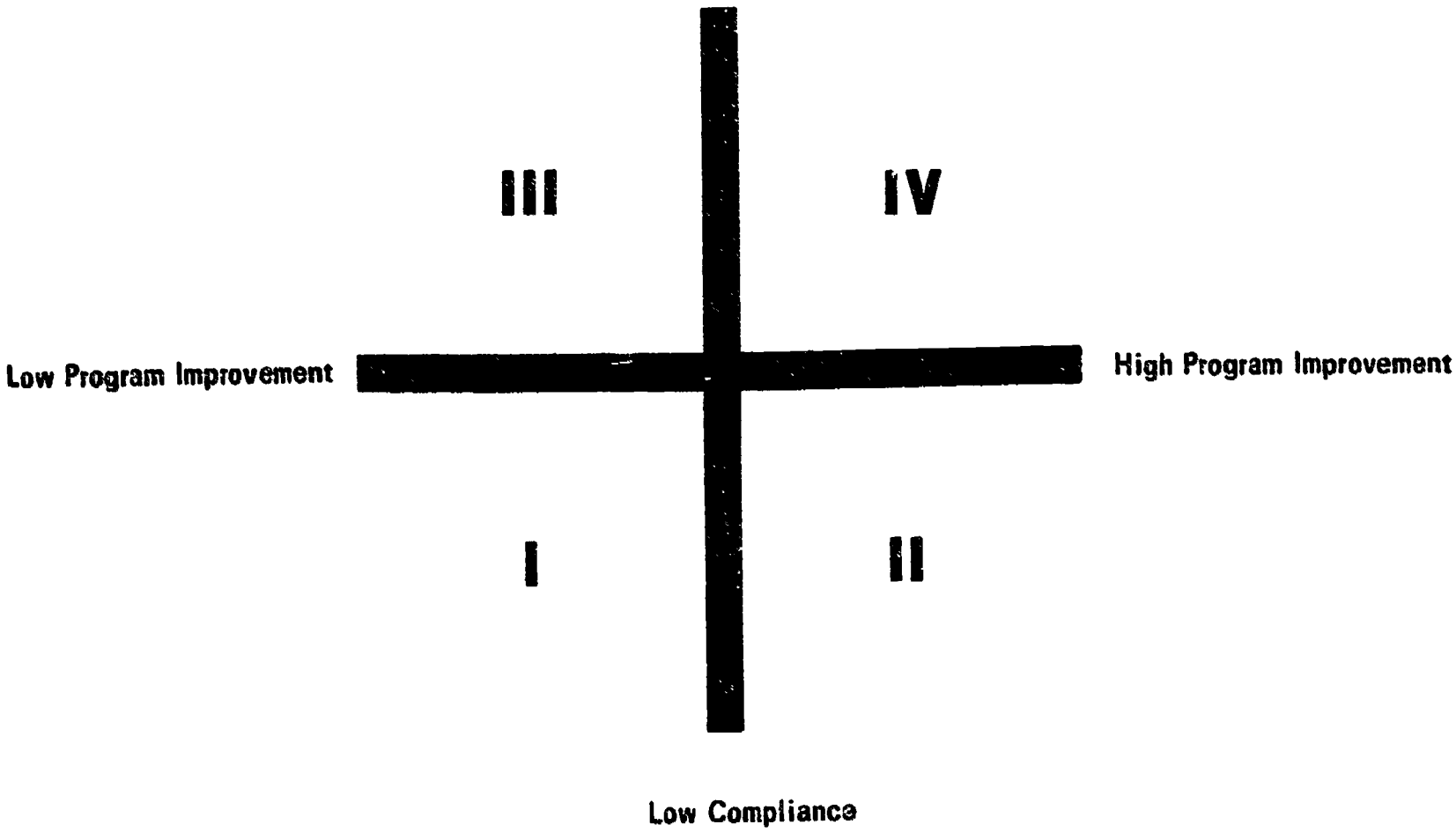

Figure 1: A Two-Dimensional Model of Title I Evaluation Implementation

activities directed toward such client groups would involve outreach and awareness level communication. According to the Hall and Loucks (1976) continuum described earlier, these client groups would be in a state of Nonuse.

Quadrant II represents the client group with implementation objectives established prior to the introduction of the mandated evaluation. These client groups must consider adapting their current evaluation strategies to the mandate introduced. TAC services to these client groups would include outreach and awareness plus needs sensing, problem solving assistance including that unrelated to implementation of the mandate. These states or districts must carefully avoid increasing the perceived complexity of their change efforts. Such complexity may detract from local implementation (Fullan and Pomfret, 1977) and utility.

Under the configural view and the mutual adaptability perspective, TACs need to be particularly sensitive to conflicts between the mandated system and local evaluation goals. TACs could serve to facilitate negotiations between the external developer and the client group.

Placing a Quadrant II client group in the levels of use continuum is problematic. With respect to TIERS they would probably be at the Nonuse stage. With respect to their internally defined improvement efforts they could be at any level. The more advanced they are with respect to the internal effort, the more likely they could incorporate a new innovation, assuming it does not conflict in important ways with their current system. This hypothesis is based on conclusions of Rogers and Shoemaker (1971) that relative simplicity of an innovation and its compatibility with current practice contribute to effective implementation.

Quadrant III represents the client group whose Title I evaluation implementation is well established and bounded by the mandated evaluation specified in the law and regulations. TAC activities would emphasize orientation, model selection, model implementation and reporting. These client groups would be at the Orientation, Preparation, Mechanical Use or Routine Use levels.

Quadrant IV contains client groups whose implementation is not bounded by the mandated system but includes it as an integral element. Implementation of the TIERS is an incomplete expression of client needs, intentions and goals.

TAC services to Quadrant IV clients include all of those appropriate for Quadrant III clients, as well as needs sensing, problem identification, goal clarification and technical support during implementation. Client groups in Quadrant IV may range from the Orientation level to the Renewal level of use. Their overall goal is guided toward Renewal.

If we were to follow either the R-D-D-A Model of early Guba and Clark (undated) or the linear interpretation of levels of use hypothesized by Hall and Loucks (1976), forecasting based on movement within or between quadrants would be problematic. Clients beginning in Quadrant II are one important perturbation. Assuming a linear progression beginning with Nonuse and moving to a predefined level (e.g., Routine Use) would not explain movement of states beginning in this quadrant.

Conceptualizing implementation intent as involving two independent dimensions reflects the essentially dynamic, nonlinear view of change implicit in the configurational view. It suggests greater role

complexity for technical assistance. Technical assistance must use a broader range of roles than provided by the linear R-D-D-A Model.

An integration of the Hall and Loucks (1976) continuum and the two-dimensional model of orientation toward Title I evaluation implementation is presented in Figure 2. This model provides a conceptual scheme that can be translated into operational terms within each receiver agency.

Insert Figure 2 Here

Whether clients are SEAs or LEAs, placing them on the two-dimensional grid raises several questions:

1. Is there differentiation in TAC activity according to the quadrant in which the client is perceived to fall?
2. Is the quadrant placement of clients stable or shifting over time? If it is shifting, what seems to stimulate movement, and how does movement occur?
3. Do change constructs represented have utility to TAC or to clients in planning?

In answer to the first question, TAC services can be described in terms of function, mode and scheduling. Three functions that account for most of TAC's direct service to clients are conveying information, training clients in specific technical skill areas, such as how to implement an evaluation model, and helping clients in planning and problem solving related to evaluation. Further specifications of these service functions are provided in Table 3.

Insert Table 3 Here

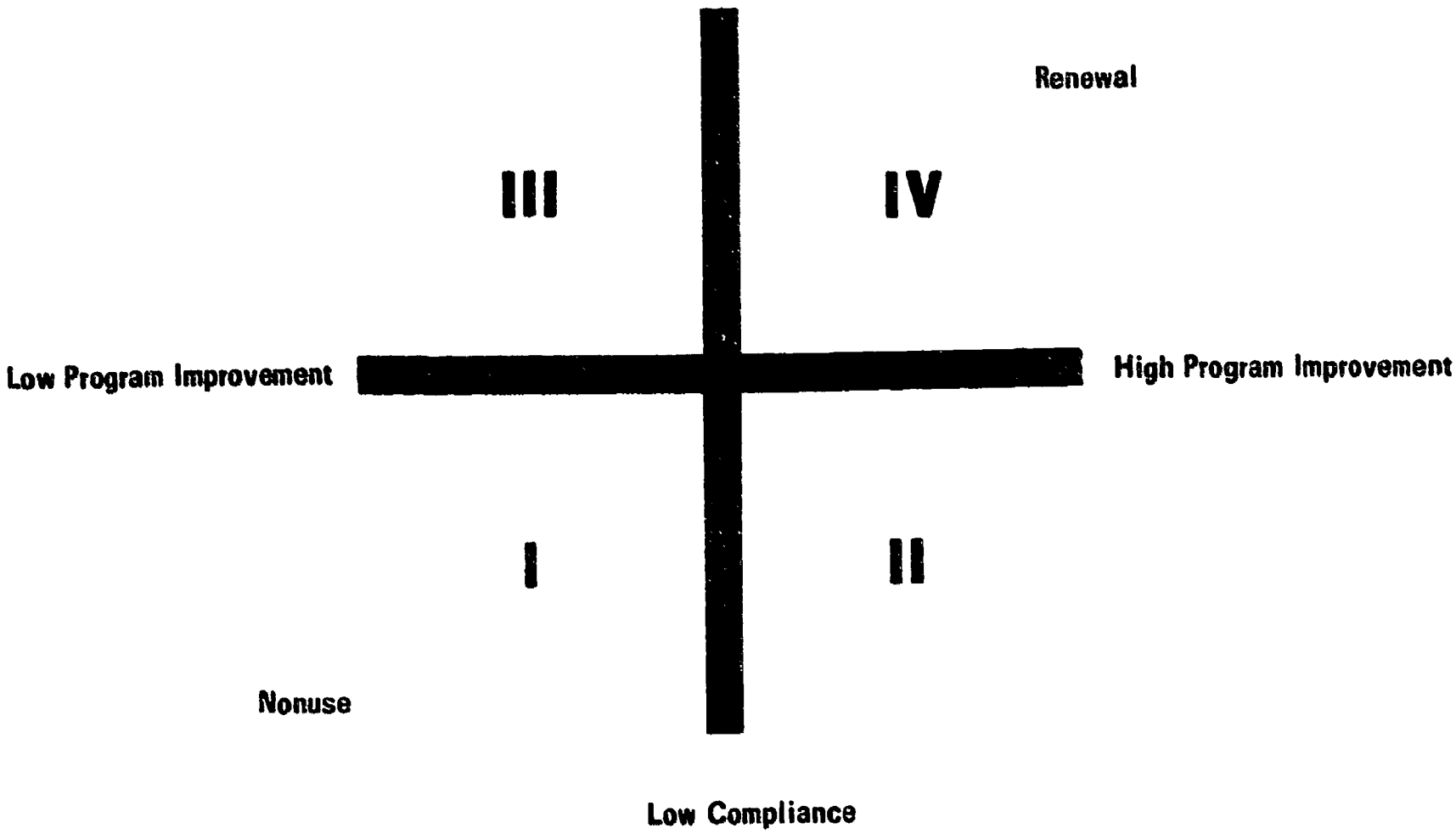

Figure 2: A Three-Dimensional Model of Title I Evaluation Implementation

Table 3

Examples Of Content Of Technical Consultation By TAC

TAC Consultation Function	SEA & LEA Evaluation Activities				
	Planning	Implementing	Analyzing	Interpreting	Reporting
Conveying	Providing materials (e.g., test charts) to LEAs for planning an evaluation.	Providing implementation checklists for each evaluation model.	Making available to project directors directions for the use of programmable calculators.	Corresponding with an LEA to assist in interpreting an unanticipated or anomalous result.	Providing a paper with suggestions for effective reporting techniques.
Helping	Consulting with an LEA to help integrate Title I testing into the district testing program.	Assisting an LEA develop selection criteria, including composite scores.	Consulting with the SEA to analyze errors on LEA report forms and on Title I computer printout.	Reviewing evaluation results with an LEA to recommend program modifications.	Assisting an LEA develop an evaluation report for a JDRP proposal.
Training	Providing a workshop to PAC representatives so they can participate in evaluation planning.	Training SEA Title I staff on nuances of model implementation.	Teaching LEA representatives to make NCE and out-of-level score conversions.	Conducting a workshop for LEA staff on the use of item data for instructional planning.	Conducting a simulation activity on data reporting.

The technical services are carried out by TAC via in-person or telephone consultations, workshops and media presentations--both print and audio-visual. These modes are often used in combination. TAC services to various clients also vary in terms of the frequency, duration and regularity of contact. Annual training workshops, ad hoc helping consultations by telephone, and quarterly newsletters conveying information are illustrations of TAC activities that vary in scheduling.

How might services described in terms of these three categories differ for clients characterized in terms of their quadrant placement? The degree to which a client's evaluation implementation goals are compliance-oriented should correlate with the amount of technical assistance sought for conveying and training activities; the self-improvement dimension to the amount of technical assistance for helping activities. These activities are correlated with delivery mode. Conveying is achieved efficiently with media, often used in a workshop setting; training likewise is effectively carried out through workshops with reliance placed on simulation materials. Helping activities, on the other hand, involve an interactive process combining responsive and proactive elements.

The predicted relationships between quadrant placement and dominant characteristics of technical assistance are summarized in Table 3, and suggest differences among quadrants in terms of activity, mode and scheduling. Data submitted to the U.S. Office of Education for the first three years of the TAC contracts tend to support some of the hypothesized relationships.

Insert Table 4 Here

Table 4

Predicted Relationship Between Model
Placement and Characteristics of Technical Assistance

Quadrant	Major Problems/Needs	Dominant Characteristics of TA		
		Activity	Mode	Scheduling
I	Ill-formed implementation objectives Low motivation to change evaluation practices	Conveying	Workshop	Infrequent Short duration Irregularly scheduled
II	Need to adapt evaluation strategies to mandate Need to avoid complexity	Helping	Consultation	Frequent Variable duration Regular and ad hoc schedule
III	Need to conform to mandate	Conveying/ Training	Workshop	Moderate frequency Longer duration Regularly scheduled
IV	Need to meet additional evaluation goals Need to utilize evaluation data for program improvement	Conveying/ Training/ Helping	Workshop & Consultation	Frequent Variable duration Regular and ad hoc schedule

The data base contains information about mode and frequency, not about function, duration of contact or regularity of scheduling. Other limitations of the data base include incompleteness, inconsistency over time of the recording system and method of aggregation which for our purposes probably obscures the pattern of predicted relationships. Since the data are judged not to be of sufficiently high quality to subject to rigorous analysis, the approach taken was to seek out examples and counterexamples of the relationships predicted, in order to make a preliminary judgment of the potential for pursuing the hypotheses stated more formally.

Insert Figure 3 Here

Inspection of Figures 3a, 3b and 3c reveals that Quadrant III SEAs used workshops more than other modes of technical assistance. The differences between Quadrants II and IV are less pronounced, though there is slightly greater reliance upon consultation in Quadrant II, as predicted.

The second question concerned the stable or shifting placement of clients over time. Clearly, with respect to TIERS, all clients began in Quadrants I or II in 1976. We suggest that movement can be meaningfully described in terms of the levels of use continuum and that for most states or districts beginning in Quadrant I, movement has been linear. States or districts that began in Quadrant II will depart from linear implementation across levels. To date, evidence regarding levels of use is indirect and based on informal observation.

Let us now turn to the final question, do the constructs presented in this paper have utility to TAC or its clients in planning?

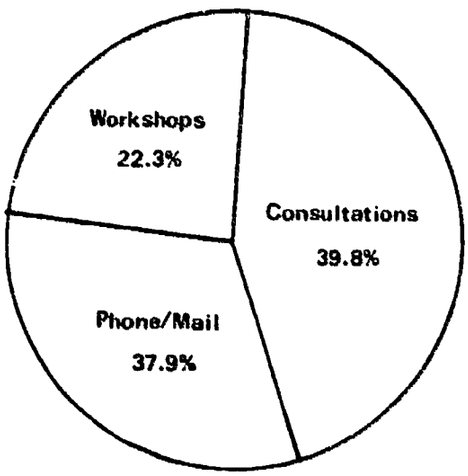

Figure 3a

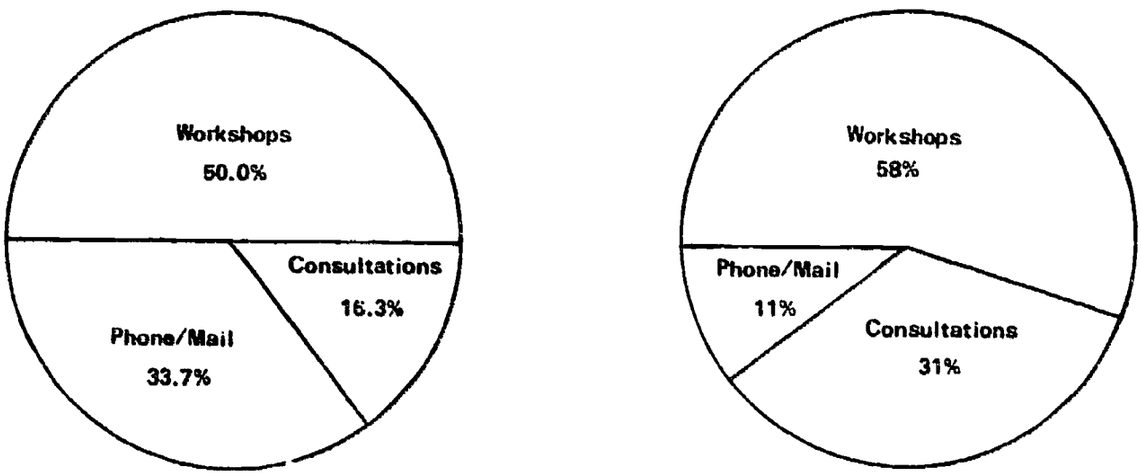

Figure 3b

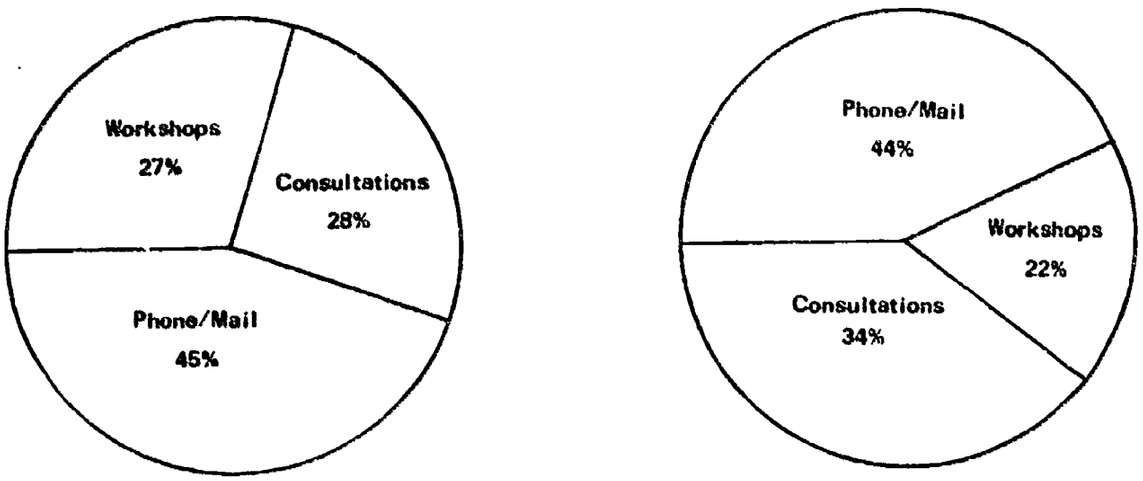

Figure 3c

Figure 3: Mode of Field Contact for Five SEAs, 1976-79
(3a, Quadrant II; 3b, Quadrant III; 3c Quadrant IV)

Historically, planning occurs when TACs plan with SEAs annually as letters of agreement are negotiated. Planning has frequently been event-oriented; for example, an annual state or regional Title I conference is scheduled, at which TAC assistance is requested. Modes and scheduling of technical assistance to be provided are often estimated on the basis of past experience combined with current projections. The content focus of the technical assistance, is not necessarily fully explicated nor is it related to the negotiated agreements specifying mode and amount of technical assistance. Content selection may be made from a smorgasbord offering of a variety of topics related to TIERS, testing, program evaluation and ancillary services.

In the absence of specific client goals for improving Title I evaluation efforts or a common framework for analyzing status of implementation, such planning is often based on best guesses for what services are needed. In this situation, the providers of technical assistance might encourage receivers to look at their position on the two dimensional model of implementation and the level of use framework, thereby assessing their status and clarifying their evaluation goals. Such self-appraisal can lead to the planning of efficient, timely and client-centered technical assistance activities.

These models can be used as heuristic guides or more formally as a basis for establishing systematic means of data collection. On the hueristic level, simple presentation of either model has been observed to heighten clients' awareness of their implicit implementation goals and strategy and has provided a structure that complements the presentation of typical listings of TAC workshops and consultations. In one instance an SEA client's concerns have been observed to shift in emphasis as a

result of pointing out that previous services focused primarily on compliance over program improvement (e.g., the SEA perceived itself to be in Quadrant III and to have moved in a vertical plane with little horizontal movement).

Several informal presentations of the levels of use continuum have elicited such client reactions as: "This is where I am and this is where I want to be."

More systematic application of the levels of use framework involves interview or questionnaire development to allow for assessment of status. Through self-assessment an SEA may determine its location along the implementation continuum. Interim evaluation system objectives can be established within an overall implementation framework. Retracking to plug gaps in the overall scheme can be considered.

Roles and responsibilities of SEAs, LEAs and TACs can be established within such a framework. Products documenting and solidifying level attainment can be prepared in a timely fashion. Receivers and providers can better forecast critical issues associated with progressing across levels.

While the model is presented in linear terms it is recognized that certain events or demands may break down the apparent linearity. When this happens, however, the SEA (or LEA) can evaluate the implications of such departures in terms of their readiness or the readiness of their LEAs.

Instrumentation could also be used to document (across time) gradual improvements in Title I evaluation resulting from successful integration of mandated and self-initiated evaluation activities.

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